Society for California Archaeology

NEWSLETTER

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Rock Art Conservation at Wabena Point

by Dan Foster and John Betts

The Wabena Point site, PLA-591, consists of a group of petroglyphs located on a single rock outcropping near the crest of the northern Sierra Nevada at an elevation of 6500 feet. It is curiously perched at the end of a rocky point which projects above and separates two enormous canyons of the American River's north fork. The area surrounding the rock art is strewn with large angular chunks of fractured metamorphic rock, providing dramatic evidence of the severe freeze-thaw conditions affecting the bedrock.

The rock art panel measures six meters long by two meters wide. Its decorated surface is horizontal, projecting only slightly above ground level. The art was probably produced by direct pecking through the granite followed by a deep scratching and finishing process.

Many deeply carved figures are present, including an assortment of abstract motifs such as "sunbursts", crossed-circles, and long wavy lines. Representational elements are also present, the most dramatic being the bear track symbol. Six of these are quite realistic renderings of the track made by a bear's hind foot, except that the number of claws is not always five, varying from three to eleven. There are also 18 pairs of deer track symbols.

This style of petroglyph was first defined by Sam Payen in his excellent 1966 study of rock art in the northern Sierra Nevada. It is one of seven distinct styles found in the region,
(Continued on page 12)

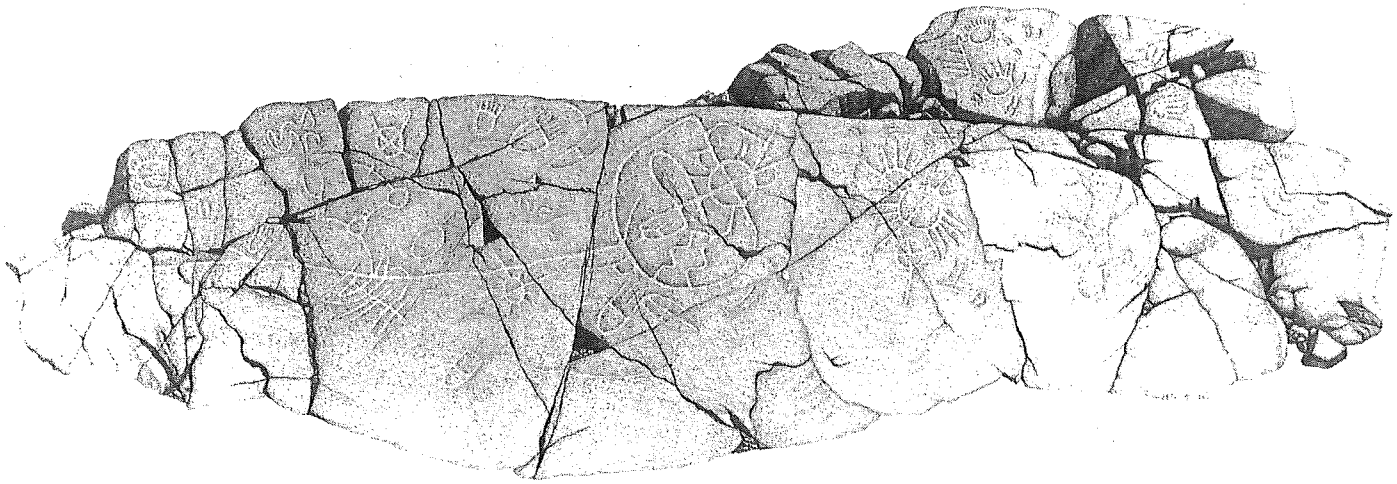
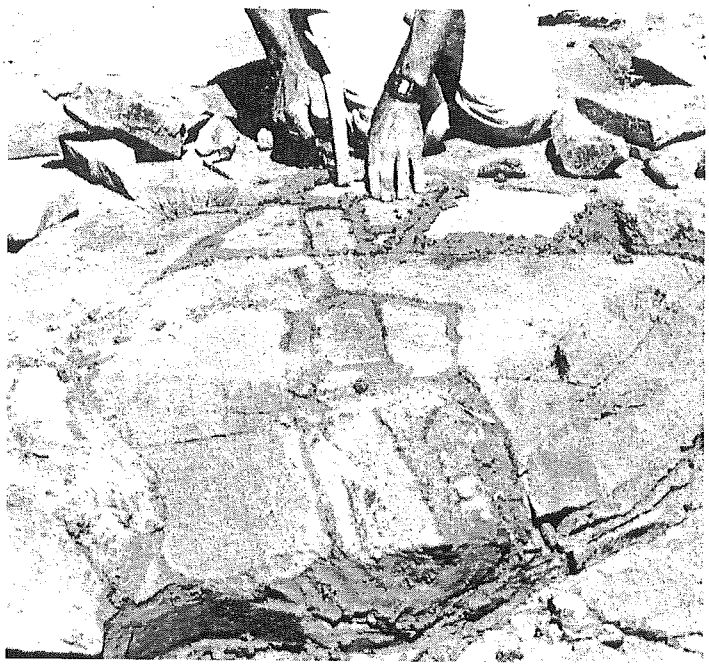


Illustration of Wabena Point petroglyphs, PLA-591, by John Betts (copyrighted). Several sections of the panel have been lost to vandals, so drawings and photos of earlier researchers have been used for this reconstruction. The block fracturing is due to freeze-thaw conditions in the high Sierra.

Wabena Point
(Continued from page 1)

named "high Sierra abstract-representational", or "style 7". Style 7 sites are located in the upper reaches of the Feather, Bear, Yuba, and American rivers on flat, glaciated bedrock surfaces, often on surfaces with a reddish patina.



Close-up view of the Wabena Point petroglyphs showing the restoration and conservation masonry work in progress.

Though the rock art elements are complex and highly variable, certain distinctive attributes help characterize the group. Style 7 sites typically are not directly associated with other cultural materials. However, a great number of distinctive artifacts have been found in proximity to demonstrate that the style is associated with the Martis archaeological complex which dates from 2500 BC to 750 BC. The evidence suggests that the Wabena Point site, and others like it, are attributable to the Martis complex. Over 175 sites of this style are now known due to the lifelong work of rock art enthusiast Willis A. Gortner. Recent obsidian hydration studies by Gortner have supported these dates, and show a peak circa 1000 BC.

The Wabena Point site was being destroyed by natural causes. The bedrock containing the main panel of petroglyphs was breaking into pieces. Vandals began removing certain sections. At least three parts of the rock art panel have disappeared in the past few years.

Fortunately, an accurate drawing of the Wabena petroglyphs has been produced for permanent documentation of the glyphs in their natural context on the rock outcrop. The carvings in the upper left corner have been stolen. John Betts was able to reconstruct them (on paper) from sketches and photos taken during the 1960s by Payen and Gortner.

Although the recordation of the site was completed, we felt compelled to take measures to better preserve this site from natural decomposition, which invites continued theft of detached glyphs. A project was designed to reduce and reverse the natural destruction of the rock, and to deter vandalism.

Dan Foster served as project director, and benefited from a five-day training course on rock art conservation from the Getty Conservation Institute. Specific techniques employed at the Wabena Point site were discussed at the class, which provided input from highly-skilled rock art conservators.

We were extremely fortunate that the landowner, Sierra Pacific Industries, not only allowed and encouraged this conservation project, but provided all necessary funding as well. (It should be noted that SPI was under no legal obligation to support this project, since the site is not located within a timber harvesting plan or other project requiring CEQA review.) SPI Vice-President Dan Tomascheski agreed to assist this project with an interest in conserving the site for future backcountry visitors.

The conservation work took place on August 16-17, 1989. Hans Muhlgraber, a highly-skilled rock mason, was employed to do the actual work. With over 25 years experience as a mason, often working in high Sierran elevations, Muhlgraber knew what type of cement products could most successfully resist the powerful forces of Sierran winter. He used a "type 2" cement mixed with concrete additives for superior water resistance and bonding.

Since the panel had large holes where chunks had fallen out, we decided to patch these holes using nearby rocks and concrete. This approach was designed to keep water out of the outcrop and allow it to run off. The mason informed us that this water, upon freezing and expanding, is the principal cause for block fracturing which the project attempted to reduce. The replacement infilling of rock also solidified the mass, making it much more difficult for vandals to remove fractured blocks. We decided that the positive effects of this conservation project far outweighed changes to esthetics and the deteriorated authenticity of the rock. The conservation project was featured in the *Sacramento Bee*, and the site location was kept confidential.

This was the sequence of treatment to the rock:

1) remove all loose rocks and rock spalls from the area to be treated;

(Continued on page 13)

Wabena Point
(Continued from page 12)

2) sweep clean;
3) apply "mud" cement (concrete bonding additives);
4) set selected rock from surrounding area in place;
5) tap rock down into mud;
6) scrape away excess in cracks;
7) sponge away excess mud;
8) scrub panel clean the following day.

View of the site upon completion of the restoration project. Hans Muhlgraber at left is washing off excess cement and cleaning the panel. John Betts is also shown, with a spectacular gorge beyond. Note the fractured rock in the foreground. The high Sierra presents difficult conditions for rock art preservation.

All people involved felt the project was a success. The panel has been stabilized to better resist erosion and decomposition for at least several years. The site will probably need future treatments periodically, perhaps every 10 years. We plan to carefully monitor the site to assess the effectiveness of this type of rock art conservation treatment.

On September 7, 1989, the site was visited by Ken Hedges of the San Diego Museum of Man and Andree Rosenfeld, an international rock art authority from the Australian National University. They were led to the site by Gortner and Betts on a tour of North Fork petroglyphs. It was a devastating shock for the group to discover that in the intervening two weeks since the restoration project, the panel had suffered perhaps its most malicious vandalism to date. Extensive scratches were gouged into the rock surface all across the lower area, repeatedly in some spots, to a depth of several millimeters.

This incident prompted immediate action by the California Department of Forestry to block the access road by constructing a ditch across it. The jeep trail leading to the site has been permanently closed. Vandalism often leads to more vandalism unless deterrence and preventive measures are taken. It can only be hoped this will not be the case at Wabena Point. It is also hoped that subsequent natural weathering will alleviate some of the esthetic damage.

President's Message
(Continued from page 11)

In our letter of interest to join the PCL Board, I wrote "We share an interest with PCL and its member organizations for better stewardship of public lands, a funded acquisition program to protect more of California's endangered natural and cultural resources, and planning to accommodate California's inevitable population growth while preserving what we can of our significant resources. I believe we can offer a valuable and supportive role in broadening the coalition for environmental planning and conservation."

PCL

There is a great deal of common ground, history, and interests shared between archaeologists and the broader environmental movement. By joining the PCL coalition SCA will have better opportunities in the years ahead to support preservation programs on behalf of cultural resources.

Next *Newsletter*

Deadline

is April 15.